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### (54) Load optimized redundant flight control surface actuation system and method

(57) An aircraft flight surface control system and method simultaneously provides the benefits of both an active/active system architecture and an active/standby system architecture. The system is preferably implemented using hydraulic actuator assemblies (202H, 204H, 206H) and electromechanical actuator assemblies (202E, 204E, 206E) coupled to the same flight control surface. During normal system operations the electromechanical actuator assemblies are energized to supply a relatively minimal force to associated flight control surfaces. In effect, the electromechanical actuators, although energized, may be pulled along by the associated hydraulic actuator assemblies, until needed. Thus, the electromechanical actuator assemblies are controlled in a manner that closely resembles the active/standby architecture.

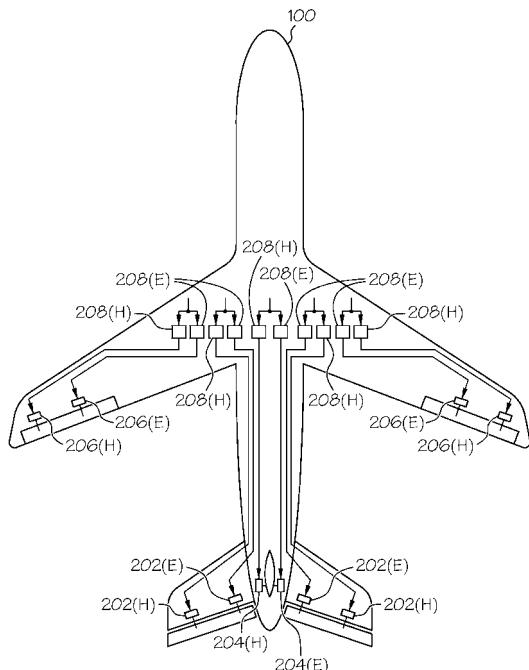


FIG. 2



## EUROPEAN SEARCH REPORT

Application Number  
EP 08 10 2039

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
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			TECHNICAL FIELDS SEARCHED (IPC)
			B64C G05D
The present search report has been drawn up for all claims			
2	Place of search Munich	Date of completion of the search 12 December 2011	Examiner Raffaelli, Leonardo
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			
T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ..... & : member of the same patent family, corresponding document			

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